

PMOS EXHIBIT 3

EXHIBIT 5 OF RYAN DIETZ'S
DECEMBER 6, 2018 DEPOSITION:
RYAN DIETZ'S INVENTION CASE NOTES



Cases

Case	2085
LeadInventor	Rossi, Derrick
Title	Reprogramming to pluripotency and directed differentiation of cell fate using modified RNAs
CM	RD
LicenseStatus	Licensed
DiscRecdDate	08/13/08
OutlookFolderID	00000000FA1D0C14EDEF334D841748FEAD8BAB0D0100A6B721CC0025F34685DD9BD4489D0D68000090AI

NotesGeneral RD and Derrick Rossi spoke about a potential new disclosure around Induced Pluripotency cells which require introduction of 4 genes and this is currently done by adenoviral vectors and the field could move rapidly ahead if there were other ways of doing this. Derrick and Luigi believe that they could use RNA to get the same effects and this would be done through existing transfectants. This would have commercial and significant scientific implications if it works out. There are likely lots of people working in this area and moving quickly could be important. Patentability will be limited by how enable the technology is at time of filing and the notion that it is based on existing technologies such as transfection and the known genes that induce IPS cells. 8/13/08 - RD.

RD met with Derrick and Luigi on this new disclosure 1/12/09. This has reagent kit value and potential therapeutics value. Reagent kit would be specific mRNAs with certain modifications (most/all known in the field) and transfection reagents for creating IPS cells without viral vectors. The therapeutic aspect would be important as the IPS cells need to be produced stably and with high scale for therapeutic uses. The suggested changes are analogous to the genes that are known to create IPS cells from previous publications. They have an inclination to have a company in this space and we spoke about how that would work regarding reagent vs therapeutic potential. I mentioned the importance of getting revenues on this asap while the therapeutic (newCo) component would be difficult at best based upon the current economic environment. I also mentioned that this would need to be disclosed to GSK based upon their ROFN. There were no problems with this and it was seen as a benefit.

Met with Derrick and Luigi on this and they are ready to go ahead with the draft provisional. I walked them through the sections of the application and mentioned that the attorneys are best at generating this format and the claims and they should focus on the science and potential embodiments that could arise. There is lots of science in this area including one reference in a patent to mRNA delivery into IPS cells. We will face significant novelty and obviousness rejections, but the various tricks they are using to get this to work appear to be significant, and the best area for coverage. They mentioned Stemgent is interested, and a CDA has been sent to cover discussions with them. I will also alert David Resnick to work with them on getting this done as soon as they put together the relevant information and data. RD.

2/26/2010 - Met with attorney Mark Fitzgerald, Luigi and Derrick. Good conversation about the draft manuscript, and patentable aspects. Is broader than just IPS differentiation as it could also drive cell fate in various directions based upon modified RNA. This has large research reagent implications supplanting the other platforms that use viruses or proteins. Also would be important in regenerative medicine for treating tissue/cells to make them move in one direction or another. Also discussed was direct therapeutic applications that could skip cellular development stages that are disease causing. This area would have the same problems as RNAi, Delivery, but would allow more than knockdown, since you could direct the cell to take different form. Also mentioned was a method for changing cells to express a surface molecule that would cause them to go to certain parts of the body or target certain tissues (tumors ect....). Other uses would be to create tissue models of disease for drug screening

purposes. We will try to get composition claims around the cells not having viruses as well as the modified RNAs and uses thereof. RD.

CaseManagerName	Ryan Dietz
LeadDept	Medicine
FundingNotes	Start-up Funds: 1180, Time Period: Two years
LawFirm	Nixon Peabody
LeadAttorney	Resnick, David
PatentStatus	Patented
DistribInfo	5/27/15. There are \$1992.22 in consulting expenses that need to be deducted. Rec'd Luigi W9 he left 06/16/10
DistTestAmount	6580
PCM_PatAdminNotes	5/19/11: Development plan is not great. Going to respond since its licensed 6/20/11: licensed to moderna. This has already been handled, filed with previos provisional. 2/12/13: was a response to OA being made
NonConfTitle	Reprogramming to pluripotency and directed differentiation of cell fate using modified RNAs
CreationDate	08/13/08
ModDate	04/14/17
IDICaseNum	08-011